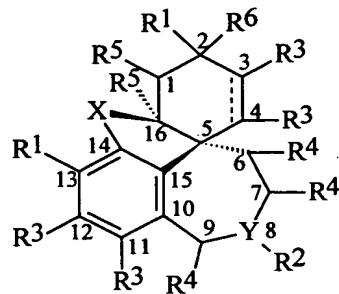


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## CLAIMS

5 1. The use of galantamine or a derivative thereof of  
formula I:

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wherein the broken line represents an optionally present double bond between carbon atoms 3 and 4, each R<sub>1</sub> is  
20 independently selected from hydrogen, hydroxyl, straight or branched chain alkyl, hydroxyalkyl, carboxyalkyl amino, alkylamino, acyl, lower alkanoyl, cyano, sulfhydryl, C<sub>1-6</sub>alkoxy, alkylthio, aryloxy, arylthio, R<sub>3</sub>-substituted aryloxy, R<sub>3</sub>-substituted arylthio, aralkoxy,  
25 an optionally R<sub>3</sub>-substituted aliphatic or aryl carbamyl group, aralkylthio, R<sub>3</sub>-substituted aralkoxy, R<sub>3</sub>-substituted aralkylthio, aryloxymethyl, R<sub>3</sub>-substituted aryloxymethyl, alkanoyloxy, hydroxy-substituted alkanoyloxy, benzoyloxy, R<sub>3</sub>-substituted benzoyloxy,  
30 aryloxycarbonyl and R<sub>3</sub>-substituted aryloxycarbonyl,

R<sub>2</sub> is selected from hydrogen, straight or branched chain C<sub>1-6</sub>alkyl, alkenyl or alkaryl group, optionally substituted by a halogen atom or a cycloalkyl, hydroxy, alkoxy, nitro, amino, aminoalkyl, acylamino, heteroaryl, heteroaryl-alkyl, aryl, arylalkyl, cyano, amyl, aroyl, cycloalkylmethyl, allyl, phenyl, R<sub>3</sub>-substituted phenyl, alkylphenyl, R<sub>3</sub>-substituted alkylphenyl, heterocyclyl

selected from  $\alpha$ - or  $\beta$ -furyl,  $\alpha$ - or  $\beta$ -thienyl, thenyl, pyridyl, pyrazinyl, and pyrimidyl, alkyl-heterocyclyl or R'-substituted heterocyclyl, where R' is alkyl or alkoxy,

5 each  $R_3$  is independently selected from hydrogen, hydroxyl, sulfhydryl, alkyl, hydroxyalkyl, aryl, aralkyl, alkoxy, mercaptoalkyl, aryloxy, thiaryloxy, alkaryloxy, mercaptoalkaryl, nitro, amino, N-alkylamino, N-arylarnino, N-alkarylarnino, fluoro, chloro, bromo, 10 iodo, and trifluoromethyl,

each  $R_4$  is independently selected from hydrogen, halo, trifluoromethyl or  $C_{1-4}$ -alkyl,

each  $R_5$  is independently selected from hydrogen or hydroxymethyl,

15  $R_6$  is hydrogen or  $C_{1-6}$ alkyl, or when  $R_1$  at carbon atom 2 is hydroxyl,  $R_6$  may be a moiety of formula I wherein  $R_6$  is hydrogen and  $R_1$  is a linking bond; or

$R_1$  at carbon atom 2 and  $R_6$  may jointly form semicarbazone,

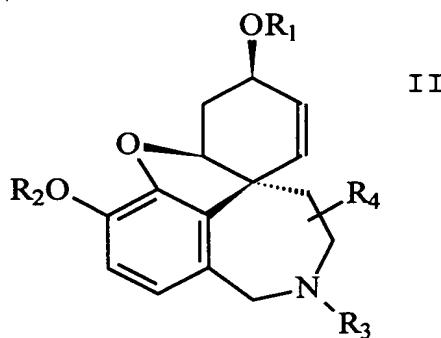
20  $X$  is oxygen or  $NR_3$ ,

$Y$  is nitrogen or phosphorus,  
and methylenedioxy derivatives thereof and pharmaceutically acceptable acid addition salts thereof  
in the manufacture of a medicament for combatting 25 attention deficit disorders.

2. The use of galantamine or a derivative thereof of formula II

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wherein R<sup>1</sup> and R<sup>2</sup> which may be the same or different each represents a hydrogen atom or an acyl group, such as a lower alkanoyl group, e.g. an acetyl group or a straight-chained or branched alkyl group, e.g. methyl, ethyl, propyl, or isopropyl;

R<sup>3</sup> is a straight or branched chain alkyl, alkenyl or alkaryl group which is optionally substituted by a halogen atom or a cycloalkyl, hydroxy, alkoxy, nitro, amino, aminoalkyl, acylamino, heteroaryl, heteroarylalkyl, aroyl, aroylalkyl or cyano group; and

R<sup>4</sup> represents a hydrogen or a halogen atom attached to at least one of the ring carbons of the tetracyclic skeleton,

and pharmaceutically acceptable salts thereof, such as a hydrobromide, hydrochloride, methylsulphate or methiodide in the manufacture of a medicament for combatting attention deficit disorders.

3. The use of galantamine or a salt thereof in the manufacture of a medicament for combatting attention deficit disorders.

4. The use is claimed in any one of claims 1 to 3 wherein the disorder is attention deficit hyperactivity disorder.

5. The use as claimed in any one of claims 1 to 3 wherein the disorder is a hyperkinetic disorder.

6. A method of combatting attention deficit disorders comprising administering galantamine or a salt or derivative thereof as defined in claim 1 or claim 2.

7. A method as claimed in claim 6 wherein the disorder is as defined in claim 4 or claim 5.